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Sut	estitute for form 1449A/B/PT	0		Complete if Known		
				Application Number	10/003468-Conf. #4328	
IN	NFORMATION	N DI	SCLOSURE	Filing Date	October 23, 2001	
S	TATEMENT I	BY /	APPLICANT	First Named Inventor	Fatemeh MOJTABAI	
				Art Unit	1631	
	(Use as many sh	eets as	necessary)	Examiner Name -	M.C. Lee MORAN	
Sheet	1	of	4	Attorney Docket Number	FMI-001	

	U.S. PATENT DOCUMENTS								
Examiner	Cite	Document Number	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where				
Initials*	No.1	Number-Kind Code ² (if known)	MM-DD-YYYY	Applicant of Cited Document	Relevant Passages or Relevant Figures Appear				
MAN	A1°	US-4,489,133	12-18-1984	Komberg					
My	A2*	US-5,044,308	09-03-1991	Mojtabaj					
WAY		US-5,223,409	06/1993	Ladner et al.					
1449		US-5,514,501	05-07-1996	Tarlov					
W	A5*	US-5,970,381	10-19-1999	Ohno et al.					

	FOREIGN PATENT DOCUMENTS										
Examiner	Cite	Foreign Patent Document	Publication	Name of Patentee or	Pages, Columns, Lines,						
initials*	No.'	Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)	MM-DD-YYYY	Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear	76					
W	B1	EP-0431400-A1	06-12-1991	BASF AG							
WY.	₍ B2	EP-0274824-B1	01-29-1992	Ribi, Hans O.							
W. H	B3	WO-95/09058-A2	04-06-1995	Technobiochip							
Mary		WO-9610178-A1	04-04-1996	Pharmacia Biosensor AB							
TWY	B5	WO-00/04382-A1	01-27-2000	Zyomyz, Inc.							

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		NON PATENT LITERATURE DOCUMENTS						
Examiner Initials	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.						
IM.	C1	"The Shape Shifting Business," Nature Biotechnology, Vol. 18:905 (2000)						
	C2	Amann, Egon, et al., "Tightly Regulated tac Promoter Vectors Useful for the Expression of Unfused and Fused Proteins in Escherichia coli," Gene, Vol. 69:301-315 (1988)						
	СЗ	Baldari, C., et al., "A Novel Leader Peptide Which Allows Efficient Secretion of a Fragment of Human Interleukin 1β in Saccharomyces cerevisiae," The EMBO Journal, Vol. 6(1):229-234 (1987)						
	C4	Bell, Christine M., et al., "Materials Chemistry of Organic Monolayer Thin Films," <i>Materials Chemistry: An Emerging Discipline, pp.</i> 211-230 (1995) Brisson, A., et al., "Quaternary Structure of the Acetylcholine Receptor," <i>Nature, Vol.</i> 315:474-477 (1985)						
	C5							
	C6	Buck, Linda, et al., "A Novel Multigene Family May Encode Odorant Receptors: A Molecular Basis for Odor Recognition," <i>Cell, Vol.</i> 65:175-187 (1991)						
	C7	Burns, Mark A., et al., "An Integrated Nanoliter DNA Analysis Device," Science, Vol. 282:484-487 (1998)						
	C8	Cho, Charles Y., et al., "An Unnatural Biopolymer," Science, Vol. 261:1303-1305 (1993)						
C9 Cornwell, Marilyn M., et al., "Increased Vinblastine Binding to Membrane Ve Multidrug-resistant KB Cells," The Journal of Biological Chemistry, Vol. 261(Comwell, Marilyn M., et al., "Increased Vinblastine Binding to Membrane Vesicles from Multidrug-resistant KB Cells," <i>The Journal of Biological Chemistry</i> , Vol. 261(17):7921-7928 (1986)						
C10 Costello, M.J., et al., "Membranous Cytochrome c Oxidase, A Freeze-Fracture Electron Microscopic Analysis," J. Mol. Biol., Vol. 162:131-156 (1982)								
Examiner Signature		Ma Motor Date Considered 12/22/05						

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S	ibstitute for form 1449A/B/P1	ro		Complete If Known		
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1 :	STATEMENT	BY A	APPLICANT	First Named Inventor	Fatemeh MOJTABAI	
`				Art Unit	1631	
	(Use as many sh	eets as	necessary)	Examiner Name	M.C. Lee MOLAN	
Shee	2	of	4	Attorney Docket Number	FMI-001	

MAM	C11	Craven, Bryan M., "Crystal Structure of Cholesterol Mond (1976)	hydrate," Natur	re, Vol. 260:727-729				
Mary	C12	Cull, Millard G., et al., "Screening for Receptor Ligands L Linked to the C Terminus of the <i>lac</i> Repressor," <i>Proc. Na</i> (1992)						
My	C13	Cwirla, Steven E., et al., "Peptides on Phage: A Vast Lib Ligands," Proc. Natl. Acad. Sci. USA, Vol. 87:6378-6382	(1990)					
w	¢ 14	Darst, Seth A., et al., "Two-dimentional Crystals of Streptavidin on Biotinylated Lipid Layers and Their Interactions with Biotinylated Macromolecules," <i>Biophys. J., Vol.</i> 59:387-396 (1991)						
/	C15	Demel, R.A., et al., "Relation Between Various Phosphol Membranes and the Interfacial Phospolipid Pressure in Nacta, Vol. 406:97-107 (1975)	fonolayers," <i>Bio</i>	ochimica et Biophysica				
	C16	Devlin, James J., et al., "Random Peptide Libraries: A Somolecules," Science, Vol. 249:404-406 (1990)	•					
	C17	Dewitt, Sheila Hobbs, et al., "'Diversomers': An Approach Chemical Diversity," <i>Proc. Natl. Acad. Sci. USA, Vol.</i> 90:	5909-6913 (199	3)				
	C18	Erb, Eric, et al., "Recursive Deconvolution of Combinator Acad. Sci. USA, Vol. 91:11422-11426 (1994)						
	C19	Felici, Franco, et al., "Selection of Antibody Ligands from Expressed on a Multivalent Exposition Vector," J. Mol. Bi	ol., Vol. 222:301	1-310 (1991)				
	C20	Fodor, Stephen P.A., et al., "Multiplexed Biochemical Ass Vol. 364:555-556 (1993)						
	C21	Frey, Terrence G., "Cytochrome c Oxidase: Structural St Dimensional Crystals," Microscopy Research and Technic	que, Vol. 27:31!	9-332 (1994)				
	C22	Frey, Terrence G., et al., "Structure and Orientation of Cy Membranes," The Journal of Biological Chemistry, Vol. 2	53(12):4389-43	95 (1978)				
	C23	Frey, Terrence G., et al., "Electron Microscopy of Cytoch Dimer Relationship and Cytochrome c Binding Site," J. M.						
	C24	Fuller, S.D., et al., "Structure of Cytochrome c Oxidase in dimensional Crystals," J. Mol. Biol., Vol. 134:305-327 (19		derived Two-				
	C25	Gallop, Mark A., et al., "Applications of Combinatorial Ter Background and Peptide Combinatorial Libraries," <i>Journal</i> 37(9):1233-1251 (1994)						
	C26	Garavito, R. Michael, et al., "The Art of Crystallizing Mem Enzymology, Vol. 1(1):57-69 (1990)	brane Proteins,	" Methods in				
	C27	Garavito, R. Michael, et al., "Crystallization of Membrane Crystal Growth, Vol. 110:89-95 (1991)						
	C28	Glaeser, Robert M., "Electron Crystallography of Biologic Chem., Vol. 36:243-75 (1985)	al Macromolecu	les," Ann. Rev. Phys.				
	C29	Glaeser, Robert M., et al., "High-resolution Electron Crys Ultramicroscopy, Vol. 52:478-486 (1993)						
	C30	Goeddel, David V., "Systems for Heterologous Gene Exp Vol. 185:3-7 (1990)	ression," <i>Metho</i>	ds in Enzymology,				
	C31 .	Gottesman, Susan, "Minimizing Proteolysis in Escherichia Enzymology, Vol. 185:119-129 (1990)	a coli: Genetic S	olutions," Methods in				
	C32	Hänggi-Mojtabai, Fatemeh, "Total Internal Reflection and Photobleaching and Determination of Molecular Motion in Thesis, University of Basel, Switzerland, pp. 61-63, 70-72	Biological Men					
V	C33	Henderson, R., et al., "Arrangement of Cytochrome Oxida Vesicle Crystals," J. Mol. Biol., Vol. 112:631-648 (1977)	ase Molecules in	ŧ _				
	C34	Hirai, Hisamaru, et al., "A Novel Putative Tyrosine Kinase		ded by the eph				
Examiner Signature		Ma Moran	Date Considered	12/22/05				

PTO/SB/08a/b (07-05)
Approved for use through 07/31/2008. OMB 0651-0031
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Sheet	3	of	4	Attorney Docket Number	FMI-001	

W	4	Gene," Science, Vol. 238:1717-1720 (1987)
MAN	C35	Komberg, Roger D., et al., "Two-dimensional Crystals of Proteins on Lipid Layers," Current
MA		Opinion in Structural Biology, Vol. 1:642-646 (1991)
1	C36	Kühlbrandt, W., "Two-dimensional Crystallization of Membrane Proteins," Quarterly Reviews
\vdash		of Biophysics, Vol. 25(1):1-49 (1992)
1 1	C37	Kurjan, Janet, et al., "Structure of a Yeast Pheromone Gene (MFα): A Putative α-Factor
\vdash		Precursor Contains Four Tandem Copies of Mature α-Factor," Cell, Vol. 30:933-943 (1982)
l j	C38	Lam, Kit S., "Application of Combinatorial Library Methods in Cancer Research and Drug
		Discovery," Anti-Cancer Drug Design, Vol. 12:145-167 (1997)
	C39	Lam, Kit S., et al., "A new type of synthetic peptide library for identifying ligand-binding activity," Nature, Vol. 354:82-84 (1991)
	C40	Luckow, Verne A., et al., "High Level Expression of Nonfused Foreign Genes with Autographa
1 /		californica Nuclear Polyhedrosis Virus Expression Vectors," Virology, Vol. 170:31-39 (1989)
	C41	Marx, Jean, et al., "Bad for the Heart, Bad for the Mind?" Science, Vol. 294:508-509 (2001)
	C42	McConnell, Harden M., "Structures and Transitions in Lipid Monolayers at the Air-Water
		Interface," Annu. Rev. Phys. Chem., Vol. 42:171-95 (1991)
	C43	Mimms, Larry T., et al., "Phospholipid Vesicle Formation and Transmembrane Protein
	<u> </u>	Incorporation Using Octyl Glucoside," Biochemistry, Vol. 20:833-840 (1981)
	C44	Moy, V.T., et al., "Molecular Order in Finite Two-dimensional Crystals of Lipid at the Air-Water
igspace	l	Interface," J. Phys. Chem., Vol. 92:5233-5238 (1988)
	C45	Newman, Richard H., "Two-dimensional Crystallization of Proteins on Lipid Monolayers,"
igspace	ļ	Electron Microsc. Rev., Vol. 4:197-203 (1991)
	C46	Pattus, F., et al., "Spreading of Biomembranes at the Air/Water Interface," Biochimica et
	<u> </u>	Biophysica Acta, Vol. 57:71-82 (1978)
	C47	Perrimon, Norbert, "Signalling Pathways Initiated by Receptor Protein Tyrosine Kinases in
	1015	Drosophila," Current Opinion in Cell Biology, Vol. 6:260-266 (1994)
	C48	Plowman, Gregory D., et al., "Ligand-specific Activation of HER4/p180erbB4, a Fourth
		Member of the Epidermal Growth Factor Receptor Family," Proc. Natl. Acad. Sci. USA, Vol.
	040	90:1746-1750 (1993)
	C49	Rein ten Wolde, Pieter, et al., "Enhancement of Protein Crystal Nucleation by Critical Density
 	050	Fluctuations," Science, Vol. 277:1975-1978 (1997)
	C50	Rosenberg, Mark F., et al., "Structure of the Multidrug Resistance P-glycoprotein to 2.5 nm
I 1	1	Resolution Determined by Electron Microscopy and Image Analysis," The Journal of Biological Chemistry, Vol. 272(16):10685-10694 (1997)
 	C51	Schultz, Loren D., et al., "Expression and Secretion in Yeast of a 400-kDa Envelope
	031	Glycoprotein Derived from Epstein-Barr Virus," Gene, Vol. 54:113-123 (1987)
	C52	Schwarz, Herbert, et al., "A Receptor Induced by Lymphocyte Activation (ILA): A New Member
	332	of the Human Nerve-Growth-Factor/Tumor-Necrosis-Factor Receptor Family," Gene, Vol.
		134:295-298 (1993)
 	C53	Scott, Jamie K., et al., "Searching for Peptide Ligands with an Epitope Library." Science. Vol.
		249:386-390 (1990)
	C54	Shieh, H.S., et al., "Crystal Structure of Anhydrous Cholesterol," Nature, Vol. 267:287-289
		(1977)
	C55	Shier, Peter, et al., "Primary Structure of a Putative Receptor for a Ligand of the Insulin
	<u></u>	Family," The Journal of Biological Chemistry, Vol. 264(25):14605-14608 (1989)
	C56	Shinzawa-Itoh, Kyoko, et al., "Effects of Ethyleneglycol Chain Length of Dodecyl
		Polyethyleneglycol Monoether on the Crystallization of Bovine Heart Cytochrome c Oxidase,"
\mathcal{M}	ļ	J. Mol. Biol., Vol. 246:572-575 (1995)
WAV	C57	Smith, Gale E., et al., "Production of Human Beta Interferon in Insect Cells Infected with a
_w.	<u></u>	Baculovirus Expression Vector," Molecular and Cellular Biology, Vol. 3(12):2156-2165 (1983)

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Sheet	4	of	4	Attorney Docket Number	FMI-001	

MAN	C58	Sonveaux, Nathalie, et al., "Secondary and Tertiary Structure Changes of Reconstituted P-glycoprotein," The Journal of Biological Chemistry," Vol. 271(40):24617-24624 (1996)
1	C59	Studier, F., William, et al., "Use of T7 RNA Polymerase to Direct Expression of Cloned Genes," <i>Methods in Enzymology, Vol.</i> 185:60-89 (1990)
	C60	Tsukihara, Tomitake, et al., "Structures of Metal Sites of Oxidized Bovine Heart Cytochrome c Oxidase at 2.8 Å" Science, Vol. 269:1069-1074 (1995)
	C61	"Ullmann's Encyclopedia of Industrial Chemistry," Vol. A26, pp. 696, 706 (1995)
	C62	Valpuesta, J.M., et al., "Electron Cryo-microscopic Analysis of Crystalline Cytochrome Oxidase," <i>J. Mol. Biol., Vol.</i> 214:237-251 (1990)
	C63	Vanderkooi, G., et al., "Biological Membrane Structure: III. The Lattice Structure of Membranous Cytochrome Oxidase," <i>Biochimica et Biophysica Acta, Vol.</i> 274:38-48 (1972)
	C64	Verger, R., et al., "Spreading of Membranes at the Air/Water Interface," Chemistry and Physics of Lipids, Vol. 16:285-291 (1976)
	C65	Wada, Ken-nosuke, et al., "Codon Usage Tabulated from the GenBank Genetic Sequence Data," Nucleic Acids Research, Vol. 20:2111-2118 (1992)
	C66	Weis, Robert M., et al., "Two-dimensional Chiral Crystals of Phospholipid," Nature, Vol. 310:47-49 (1984)
	C67	Wong, Stanislaus S., et al., "Covalently Functionalized Nanotubes as Nanometre-sized Probes in Chemistry and Biology," <i>Nature, Vol.</i> 394:52-55 (1998)
V	C68	Yoshikawa, Shinya, et al., "Strategies for Crystallization of Large Membrane Protein Complexes," Journal of Crystal Growth, Vol. 122:298-302 (1992)
West	C69	Zuckerman, Ronald N., et al., "Discovery of Nanomolar Ligands for 7-Transmembrane G-Protein-Coupled Receptors from a Diverse N-(Substituted)glycine Peptoid Library," J. Med. Chem., Vol. 37:2678-2685 (1994)

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